[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2019-0614; Product Identifier 2019-NE-14-AD]

RIN 2120-AA64

Airworthiness Directives; International Aero Engines Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 2019-11-08, which applies to all International Aero Engines, LLC (IAE) PW1133G-JM, PW1133GA-JM, PW1130G-JM, PW1129G-JM, PW1127G-JM, PW1127GA-JM, PW1127G1-JM, PW1124G-JM, PW1124G1-JM, and PW1122G-JM model turbofan engines. AD 2019-11-08 requires the removal of the main gearbox (MGB) assembly and electronic engine control (EEC) software and the installation of a part and software version eligible for installation for engines that operate on extended operations (ETOPS) flights. The actions in AD 2019-11-08 were interim and only addressed engines that operate on 180-minute or 120-minute ETOPS flights. The FAA now proposes to supersede AD 2019-11-08 to require removal and replacement of the MGB assembly on all affected engines, including engines that do not operate on 180-minute or 120-minute ETOPS flights. This proposed AD would retain all requirements of AD 2019-11-08 for ETOPS engines, and would also require replacement of the affected MGB assembly and EEC software at the next engine shop visit after the effective date of this AD for engines that do not operate on ETOPS flights. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: 202-493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact International Aero Engines, LLC, 400 Main Street, East Hartford, CT, 06118; phone: 800-565-0140; email: help24@pw.utc.com; internet: http://fleetcare.pw.utc.com. You may view this service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781-238-7759.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2019-0614; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Kevin M. Clark, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: 781-238-7088; fax: 781-238-7199; email: kevin.m.clark@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2019-0614; Product Identifier 2019-NE-14-AD" at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. The FAA will consider all comments received by the closing date and may amend this NPRM because of those comments.

The FAA will post all comments received, without change, to http://www.regulations.gov, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about this proposed AD.

Discussion

The FAA issued AD 2019-11-08, Amendment 39-19654 (84 FR 27511, June 13, 2019), ("AD 2019-11-08"), for all IAE PW1133G-JM, PW1133GA-JM, PW1130G-JM, PW1129G-JM, PW1127G-JM, PW1127GA-JM, PW1127G1-JM, PW1124G-JM, PW1124G1-JM, and PW1122G-JM model turbofan engines. AD 2019-11-08 requires the removal of the MGB assembly and EEC software and the installation of a part and software version eligible for installation for engines that operate on ETOPS flights. AD 2019-11-08 resulted from multiple reports of in-flight engine shutdowns (IFSDs) as the result of high-cycle fatigue causing fracture of certain parts of the MGB assembly. The FAA issued AD 2019-11-08 to prevent failure of the MGB assembly.

Actions Since AD 2019-11-08 Was Issued

The actions in AD 2019-11-08 were interim and only addressed engines that operate on 180-minute or 120-minute ETOPS flights. The FAA now proposes to supersede AD 2019-11-08 to require removal and replacement of the MGB assembly on all affected engines, including engines that do not operate on 180-minute or 120-minute ETOPS flights.

The FAA also determined the required actions should be revised to update the required compliance times for engines that operate on 180-minute ETOPS flights to "before further flight," because the FAA expects that all engines that operate on ETOPS flights have complied with the required actions of AD 2019-11-08.

Related Service Information

The FAA reviewed PW Service Bulletin (SB) PW1000G-C-72-00-0129-00A-930A-D, Original Issue, dated April 18, 2019, and PW SB PW1000G-C-73-00-0037-00A-930A-D, Original Issue, dated May 28, 2019. PW SB PW1000G-C-72-00-0129-00A-930A-D, Original Issue, dated April 18, 2019, describes procedures for replacing the IDG oil pump drive gearshaft assembly in the MGB assembly. PW SB PW1000G-C-73-00-0037-00A-930A-D, Original Issue, dated May 28, 2019, describes procedures for replacing the EEC software to incorporate FCS 5.0 software.

FAA's Determination

The FAA is proposing this AD because it evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would retain certain requirements of AD 2019-11-08. For engines that operate on 180-minute ETOPS flights, this proposed AD would require replacement of the affected MGB assembly before further flight. For engines that operate

on 120-minute ETOPS flights, this proposed AD would require replacement of the affected MGB assembly within 120 days after June 28, 2019 (the effective date of AD 2019-11-08). This proposed AD would require replacement of the affected MGB assembly at the next engine shop visit after the effective date of this AD for engines that do not operate on ETOPS flights. This proposed AD would also retain the replacement requirement of EEC software within 120 days after June 28, 2019 (the effective date of AD 2019-11-08).

Costs of Compliance

The FAA estimates that this proposed AD affects 72 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replace the MGB assembly	13 work-hours X $85 per hour = $1,105	$75,000	$76,105	$5,479,560
Replace the EEC software	3 work-hours X $85 per hour = $255	$0	$255	$18,360

The new requirements of this proposed AD add no additional economic burden.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to engines, propellers, and associated appliances to the Manager, Engine and Propeller Standards Branch, Policy and Innovation Division.

Regulatory Findings

The FAA has determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2019-11-08, Amendment 39-19654 (84 FR 27511, June 13, 2019), and adding the following new AD:

International Aero Engines: Docket No. FAA-2019-0614; Product Identifier 2019-NE-14-AD.

(a) Comments Due Date

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2019-11-08, Amendment 39-19654 (84 FR 27511, June 13, 2019).

(c) Applicability

This AD applies to all International Aero Engines, LLC (IAE) PW1133G-JM, PW1133GA-JM, PW1130G-JM, PW1129G-JM, PW1127G-JM, PW1127GA-JM, PW1127G1-JM, PW1124G-JM, PW1124G1-JM, and PW1122G-JM model turbofan engines.

(d) Subject

Joint Aircraft System Component (JASC) Code 7260, Turbine Engine Accessory Drive.

(e) Unsafe Condition

This AD was prompted by multiple reports of in-flight engine shutdowns as the result of high-cycle fatigue causing fracture of certain parts of the main gearbox (MGB) assembly. The FAA is issuing this AD to prevent failure of the MGB assembly. The unsafe condition, if not addressed, could result in failure of one or more engines, loss of thrust control, and loss of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Remove the MGB assembly, part number (P/N) 5322505, and install a part eligible for installation as follows:

(i) For engines that operate on 180-minute extended operations (ETOPS) flights, before further flight after the effective date of this AD;

(ii) For engines that operate on 120-minute ETOPS flights, within 120 days from June 28, 2019 (the effective date of AD 2019-11-08), or before further flight after the effective date of this AD, whichever occurs later;

(iii) For engines that do not operate on ETOPS flights, at the next engine shop visit after the effective date of this AD.

(2) For engines with MGB assembly P/N 5322505, within 120 days from June 28, 2019 (the effective date of AD 2019-11-08), or before further flight after the effective date of this AD, whichever occurs later, remove electronic engine control (EEC) software earlier than FCS 5.0 from the engine and install EEC software that is eligible for installation.

(h) Installation Prohibition

(1) After the effective date of this AD, do not install integrated drive generator (IDG) oil pump drive gearshaft assembly, P/N 5322630-01, into an MGB assembly.

(2) After the effective date of this AD, do not load EEC software earlier than FCS 5.0 on any engine identified in paragraph (c) of this AD with an MGB assembly, P/N 5322505.

(i) Definitions

(1) For the purpose of this AD, a "part eligible for installation" is an MGB assembly with an IDG oil pump drive gearshaft assembly other than P/N 5322630-01.

(2) For the purpose of this AD, an "engine shop visit" is the induction of an engine into the shop for maintenance involving the separation of pairs of major mating engine flanges, except that the separation of engine flanges solely for the purposes of transportation of the engine without subsequent engine maintenance does not constitute an engine shop visit.

(3) For the purpose of this AD, "EEC software that is eligible for installation" is EEC software FCS 5.0 and later.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (k)(1) of this AD. You may email your request to: ANE-AD-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Related Information

(1) For more information about this AD, contact Kevin M. Clark, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: 781-238-7088; fax: 781-238-7199; email: kevin.m.clark@faa.gov.

(2) For service information identified in this AD, contact International Aero Engines, LLC, 400 Main Street, East Hartford, CT, 06118; phone: 800-565-0140; email: help24@pw.utc.com; internet: http://fleetcare.pw.utc.com. You may view this referenced service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781-238-7759.

Issued in Burlington, Massachusetts, on October 1, 2019.

Robert J. Ganley,
Manager, Engine & Propeller Standards Branch,
Aircraft Certification Service.
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